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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,194	05/30/2006	Jens Stougaard Jensen	83196-375528	5997
25764	7590	05/28/2010		
FAEGRE & BENSON LLP PATENT DOCKETING - INTELLECTUAL PROPERTY 2200 WELLS FARGO CENTER 90 SOUTH SEVENTH STREET MINNEAPOLIS, MN 55402-3901			EXAMINER	BUL PHUONG T
		ART UNIT		PAPER NUMBER
		1638		
NOTIFICATION DATE	DELIVERY MODE			
05/28/2010	ELECTRONIC			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

e-OfficeActionHNI@faegre.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/563,194	<b>Applicant(s)</b> JENSEN ET AL.
	<b>Examiner</b> Phuong T. Bui	<b>Art Unit</b> 1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 February 2010.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 59-121 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 63,64,75,76,83-87,92-95,97-99,102-105,108,109,114-117,120 and 121 is/are allowed.  
 6) Claim(s) 59-62,65-74,77-82,88-90,100,101,106,107,112,113,118 and 119 is/are rejected.  
 7) Claim(s) 91,96,110 and 111 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-452)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**OFFICE ACTION**

1. The Office acknowledges the receipt of Applicant's amendment filed February 16, 2010. Claims 59-121 are pending and are examined.

All previous rejections not set forth below have been withdrawn. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This action is made FINAL.

Applicant has priority benefit of July 2, 2004 filing date.

***Specification***

2. The Brief Description of Drawings has not been updated to reflect the changes in newly submitted drawings. For example, the specification refers to amino acid residues that are marked in black or gray in Figures 2 and 5. However, the newly submitted drawings do not have residues marked in black and gray. The specification refers to highlighted residues in Figure 3. However, the newly submitted Figure 3 contains no highlighting. A complete and careful comparison between the originally submitted Brief Description of the Drawings and the newly submitted figures of all figures for consistency is suggested.

Correction is required.

***Claim Objections***

3. Claims 59, 91, 96, 110 and 111 are objected to because of the following informalities:

In claim 59, "to" should be inserted before "any".

Claims 91 and 96 are objected to under 37 CFR 1.75(c) as being in improper form because claim 91 depends from two claims.

Claims 110 and 111 are duplicates of claims 104 and 105.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112, second paragraph***

4. Claims 65-74 and 77-82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 65, "protein" lacks antecedence. All subsequent recitations of "protein" are also rejected.

Clarification and/or correction are required.

***Claim Rejections - 35 USC § 102***

5. Claims 59, 61, 65, 67 and 69-71 are rejected under 35 U.S.C. 102(a) as being anticipated by Madsen et al. (Nature, Vol. 425, No. 6958, 2003, pp. 637-640 (Applicant's IDS)). Madsen teaches sequences which have 100% identity to SEQ ID NOs: 6-8, 11, 12, 15, 30 and 31; and 87% identity to SEQ ID NO:32. A sequence alignment is not provided because there are common inventors/authors but can be provided upon request. Nucleic acids, expression cassette, vector and cell are also taught (Abstract, Methods). Accordingly, Madsen anticipates the claimed invention.

Applicant traverses that Madsen was published in October 2009 after the priority date of 7 March 2003 of the instant application.

Applicant's traversal is unpersuasive because Madsen was published in October 9, 2003. It should be noted that Applicant's provisional application was not filed in March 7, 2003, but in July 3, 2003. Since claimed sequences including SEQ ID NO: 32 was first disclosed in the instant application, Applicant's earliest priority benefit is July 2, 2004. Accordingly, Madsen is prior art and anticipates the claimed invention.

6. Claims 60, 62, 66, 68, 72-74, 80-82, 88-90, 100, 101, 106, 107, 118 and 119 are rejected under 35 U.S.C. 102(a) as being anticipated by Radutoiu et al. (Nature, Vol. 425, No. 6958, 2003, pp. 585-592 (Applicant's IDS)). Radutoiu teaches sequences which have 100% identity to SEQ ID NOs: 21-24 and 99% identity to SEQ ID NO:25. A sequence alignment is not provided because there are common inventors/authors but can be provided upon request. Nucleic acids, expression cassette, vector, monocot non-nodulating cereal plant, and method of producing plant are also taught (Abstract, Methods and last paragraph of Discussion). Accordingly, Radutoiu anticipates the claimed invention.

Applicant traverses that Radutoiu was published in October 2009 after the priority date of 7 March 2003 of the instant application.

Applicant's traversal is unpersuasive because Radutoiu was published in October 9, 2003. It should be noted that Applicant's provisional application was not filed in March 7, 2003, but in July 3, 2003. Since sequences including SEQ ID NO: 54 was first disclosed in the instant application, Applicant's earliest priority benefit is July 2, 2004. Accordingly, Radutoiu is prior art and anticipates the claimed invention.

7. Claims 60, 66, 72, 80, 88, 100 and 112 are rejected under 35 U.S.C. 102(a) as being anticipated by Limpens et al. (Science, Vol. 302, No. 5645, 2003, pp. 630-633 (previously cited)). Limpens teaches a sequence which has 85% to SEQ ID NO:54. A sequence alignment can be provided upon request. Nucleic acid molecule, expression cassette, vector, plant cell and method of producing plant and transgenic legume *Medicago truncatula* are also taught (throughout article). Accordingly, Limpens anticipates the claimed invention.

Applicant traverses that Limpens was published in October 2009 after the priority date of 7 March 2003 of the instant application.

Applicant's traversal is unpersuasive because Limpens was published in October 24, 2003. It should be noted that Applicant's provisional application was not filed in March 7, 2003, but in July 3, 2003. Since sequences including SEQ ID NO: 54 was first disclosed in the instant application, Applicant's earliest priority benefit is July 2, 2004. Accordingly, Limpens is prior art and anticipates the claimed invention.

**Remarks**

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Claims 63, 64, 75, 76, 83-87, 92-95, 97-99, 102-105, 108, 109, 114-117, 120 and 121 are allowable.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong T. Bui whose telephone number is 571-272-0793.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/Phuong T. Bui/

Primary Examiner, Art Unit 1638